

## 1. IDENTIFICATION OF PRODUCT AND COMPANY

**Product Name** : 79000-00111 Ink, white  
**Use of the substance/preparation:** Ink for industrial ink jet printers (CIJ-printers)  
**Supplier** : Paul Leibinger GmbH & Co. KG  
 Daimlerstr. 14  
 78532 Tuttlingen  
 Germany  
 Phone: +49 7461 92 86-0 Fax: +49 7461 92 86-199  
 www.leibinger-group.com

## 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Flam. Liq. 2	H225	
Eye Irrit. 2	H319	
STOT SE3	H336	

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]



**Signal word:** Danger

#### Hazard statements for physical hazards

H225 Highly flammable liquid and vapour.

#### Hazard statements for health hazards

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

#### Precautionary Statements

##### Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Washthoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

##### Response

P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

## Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

## Hazardous ingredients for labeling

butanone,

## Supplemental Hazard information (EU)

**Physical properties:** In use may form flammable/explosive vapour-air mixture.

**Health properties:** Repeated exposure may cause skin dryness or cracking.

## 2.3. Other hazards

### Adverse physicochemical effects

In the case of insufficient ventilation and/or through the formation of a explosive/highly flammable mixture is possible.

### Adverse human health effects and symptoms

Prolonged/repetitive skin contact may cause skin defatting or dermatitis.

### Information pertaining to special dangers for human and environment

In use, may form flammable/explosive vapour-air mixture.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1. Substances

not applicable

### 3.2. Mixtures

#### Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
78-93-3	201-159-0	Butanone	70-80	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
7791-07-3	231-511-9	Sodium perchlorate hydrate	1-5	Ox. Sol. 1, H271 · Acute Tox. 4, oral, H302
108-65-6	203-603-9	2-methoxy-1-methylethyl acetate	1-5	Flam. Liq. 3, H226
-	-	Copolymer with acidic groups	1-5	Eye Irrit. 2, H319

Full text of H- phrases: see section 16.

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

#### General information

Change contaminated, saturated clothing. When in doubt or if symptoms are observed, get medical advice.

#### Following inhalation

Remove casualty to fresh air and keep warm and at rest. In case of respiratory tract irritation, consult a physician.

#### Following skin contact

Do not let product dry on skin. In case of skin irritation, consult a physician. Wash immediately with:  
Water and soap

#### Following eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

### **Following ingestion**

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

### **4.2. Most important symptoms and effects, both acute and delayed**

#### **Physician's information / possible symptoms**

In case of inhalation of plenty of solvent-containing fumes the following symptoms may occur:

Dyspnoea  
Dizziness  
Vomiting  
Cough  
Anaesthetic state  
Dizziness

### **4.3. Indication of any immediate medical attention and special treatment needed**

First Aid, decontamination, treatment of symptoms..

## **5. FIRE-FIGHTING MEASURES**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Alcohol-resistant foam  
Dry powder  
Carbon dioxide (CO<sub>2</sub>)  
Water spray jet

### **5.2. Special hazards arising from the substance or mixture**

Carbon monoxide (CO)  
Carbon dioxide (CO<sub>2</sub>)

### **5.3. Advice for firefighters**

#### **Special protective equipment for fire-fighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

#### **Additional information**

Use water spray jet to protect personnel and to cool endangered containers.

## **6. ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protection equipment. Be aware that gases can spread at ground level (heavier than air) and pay attention to the wind direction. Use appropriate respiratory protection. Remove all sources of ignition. Remove persons to safety.

### **6.2. Environmental precautions**

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

### **6.3. Methods and material for containment and cleaning up**

Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).

### **6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

#### Advice on safe handling

All work processes must always be designed so that the following is excluded:

Inhalation of vapours or spray/mists

Skin contact

Eye contact

If handled uncovered, arrangements with local exhaust ventilation have to be used. Always close containers tightly after the removal of product.

#### General protective measures

Do not inhale vapours.

Avoid contact with the skin.

#### Hygiene measures

Do not eat or drink when working.

Remove soaked clothing immediately.

After work wash thoroughly.

#### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep/store only in original container.

Keep/store at a controlled temperature range between 4 °C (39 °F) and 25 °C (77 °F).

Keep container tightly closed.

#### Advice on storage compatibility

Do not store together with food.

Do not store together with oxidizing agents.

Store at cool and aired place and at distance to acids and alkalis.

### 7.3. Specific end use(s)

Ink for industrial InkJet-printers.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

CAS-No	Name	code	[mg/m3]	[ppm]	Remark	
78-93-3	Butanon	AGW	600	200	1(l)	DFG, H, Y
108-65-6	2-Methoxy-1-methylethyl acetate	AGW	270	50	1(l)	DFG, EU, Y

### 8.2. Exposure controls

#### Respiratory protection

Breathing apparatus in the event of high concentrations.

#### Hand protection

Gloves (solvent-resistant): NBR (nitrile rubber)

Not suitable: PVC gloves

#### Eye protection

tightly fitting goggles

### 8.3 Environmental exposure controls

See section 6 and 7. No additional measures necessary.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b> Liquid	<b>Colour</b> white	<b>Odour</b> like ketone
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#### Odour threshold

No information available.

#### Important health, safety and environmental information

	Value	Temperature at	Method	Remark
<b>pH value</b>	No information available.			
<b>starts to boil</b>	> 35 °C			
<b>Melting point / Freezing point</b>	No information available.			
<b>Flash point</b>	-4.0 °C		DIN51755	
<b>Vapourisation rate</b>	No information available			
<b>Flammable (solid)</b>	No information available.			
<b>Flammability (gas)</b>	No information available.			
<b>Ignition temperature</b>	> 250 °C			(information concern solvent)
<b>Self ignition temperature</b>	No information available.			
<b>Lower explosion limit</b>	No information available			
<b>Upper explosion limit</b>	No information available			
<b>Vapour pressure</b>	No information available			
<b>Density</b>	~0,95 kg/l	20 °C	ISO15212-1	
<b>Vapour density</b>	No information available.			
<b>Solubility in water</b>	Forms colloidal solution			
<b>Solubility/other</b>	No information available.			
<b>Partition coefficient noctanol/ water (log PO/W)</b>	No information available.			
<b>Decomposition temperature</b>	No information available.			
<b>Viscosity dynamic</b>	~35,3 cps	25 °C	DIN53019	

#### Oxidising properties

No information available.

#### Explosive properties

No information available.

### 9.2. Other information

Vapours are heavier than air.  
flammable liquid

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

Reacts with strong oxidizing agents and strong reducing agents possibly at severe heat generation.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures..

### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions..

### 10.4. Conditions to avoid

In case of warming:

Danger of formation of explosive atmospheres.

### 10.5. Incompatible materials

Violent reaction with:

Alkali metals.

### 10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Acute toxicity

2-Butanon; EG-Nr.: 201-159-0; CAS-Nr.: 78-93-3; REACH-Nr.: 01-2119457290-43

#### Acute oral toxicity

LD50: (Rat): 3300 mg/kg

#### Acute dermal toxicity

LD50: (Rabbit): 5000 mg/kg

#### Acute inhalation toxicity

LC50: (Rat): 34,5 mg/l, 4h

LC50: (Mouse): 40 mg/l, 4h

Natriumperchlorat-Monohydrat; EG-Nr.: 231-511-9; CAS-Nr.: 7791-07-3

#### Acute oral toxicity

LD50: (Rat): 2.100 mg/kg

2-Methoxy-1-methylethyl acetate; EG-Nr.: 203-603-9; CAS-Nr.: 108-65-6; REACH-Nr.: 01-2119475791-29

#### Acute oral toxicity

LD50: (Rat): 8500 mg/kg

#### Acute inhalation toxicity

LC50: (Rat): 35,7 mg/l, 4h

Copolymer mit sauren Gruppen

#### Acute oral toxicity

LD50: (Rat): > 5.000,00 mg/kg

#### Skin corrosion/Irritation

There are no data available on the preparation / mixture itself.

#### Eye damage / irritation

There are no data available on the preparation / mixture itself.

#### Irritation to respiratory tract

There are no data available on the preparation / mixture itself.

#### Sensitisation

There are no data available on the preparation / mixture itself.

#### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

There are no data available on the preparation / mixture itself.

#### Specific target organ toxicity (single exposure)

There are no data available on the preparation / mixture itself.

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Ecotoxicological effects

*2-Butanon*; EG-Nr.: 201-159-0; CAS-Nr.: 78-93-3; REACH-Nr.: 01-2119457290-43

#### Acute (short-term) fish toxicity

EC50: (Daphnia (Big water flea)): 1382 mg/l, 48h

LC50: (Fish): 3000 mg/l, 96h

*2-Methoxy-1-methylethyl acetate*; EG-Nr.: 203-603-9; CAS-Nr.: 108-65-6; REACH-Nr.: 01-2119475791-29

#### Acute (short-term) fish toxicity

EC50: (Daphnia magna (Big water flea).): > 500 mg/l, 48h

LC50: (Rainbow trout (Oncorhynchus mykiss, former: Salmo gairdneri)): 100-180 mg/l, 96h

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

No information available.

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

No information available.

### 12.6. Other adverse effects

#### General regulation

Do not allow uncontrolled leakage of product into the environment.

Product is not allowed to be discharged into the ground water or aquatic environment.

Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.

## 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

08 01 11 (Waste paint and varnish containing organic solvents or other dangerous substances.)

15 01 02 (Plastic packaging.)

## 14. TRANSPORT INFORMATION

	<u>ADR/RID</u>	<u>IMDG</u>	<u>IATA-DGR</u>
14.1. UN number	1210	1210	1210
14.2. UN proper shipping name	PRINTING INK (butanone)	PRINTING INK (butanone)	Printing ink (butanone)
14.3. Transport hazard class(es)	3	3	3
14.4. Packing group	II	II	II
14.5. Environmental hazards	No	No	No

#### 14.6. Special precautions for user

No information available.

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

#### Land and inland navigation transport ADR/RID

Hazard label(s) 3  
tunnel restriction code D/E  
Special provisions 640D  
Classification code F1

#### Transport/further information

Regulations concerning free quantities are to be observed.

### 15. REGULATORY INFORMATION

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### 15.1.1 EU legislation

##### Directive 96/82/EC for danger control following severe accidents with dangerous substances

Not subject to 96/82/EC

##### Directive 2010/75/EU on industrial emissions

not relevant

##### Directive 2004/42/CE on the limitation of emissions of volatile organic compounds

not relevant

##### 15.1.2 National regulations

##### Störfallverordnung (12. BImSchV)

Not subject to StörfallVO.

##### Technische Anleitung zur Reinhaltung der Luft (TA-Luft)

No subject to TA-Luft.

##### Water hazard class (WGK)

slightly hazardous to water (WGK 1)

#### 15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

### 16. OTHER INFORMATION

#### Recommended uses and restrictions

Only for industrial usage (for industrial InkJet printers)

National and local regulations concerning chemicals shall be observed.

#### Further information

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

#### Wording of the H-phrases specified in chapter 3 (not the classification of the mixture!)

EUH066 Repeated exposure may cause skin dryness or cracking.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H271 May cause fire or explosion; strong oxidiser.

H302 Harmful if swallowed.H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties. These products should be stored, handled, and used in conformity with any legal regulation. The information provided above is for general guidance only without responsibility, liability, and warranty on our part